

**From:** [Young, Rich](#)  
**To:** [Lindstrom, James](#)  
**Cc:** [Juliusson, Lara](#); [Heller, Matthew](#); [Lineback, Pat](#); [Kevin Doherty](#); [Sean Finn](#)  
**Subject:** Re: Range Wide Projection Suggestions  
**Date:** Thursday, May 22, 2014 2:51:29 PM

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For simplicity's sake, perhaps we just upload all data to ScienceBase in NAD 1983 Contiguous USA Albers, regardless of the scope or scale.

For range wide map products, I would prefer using the NAD83 Albers, but modify the central meridian from -96 to -105, as Matt suggested, in order to give a more level view. That can just be done in ArcMap for display purposes only.

For state based maps, my tendency is to use whatever projection that state's agencies use. In R1, Washington uses a state plane projection, Oregon a Lambert and Idaho a Transverse Mercator. I assume that other states have adopted standard projections for their data as well. I'm not trying to complicate the matter, given that we're dealing with 11 different states, but again, if you're only displaying a state like WA or OR and using Albers, even with the -105 central meridian, it looks very skewed on the page.

I would be fine with leaving the map orientation up to the individual cartographer, as Jim suggested, to avoid having to specify numerous projections, if that's what the group wants to do.

Rich

On Thu, May 22, 2014 at 12:27 PM, Lindstrom, James <[james\\_lindstrom@fws.gov](mailto:james_lindstrom@fws.gov)> wrote:

I can work on putting some language together for projections but I have some other questions. It sounds like folks agree that the recommended/suggested Datum be NAD 1983 and projection of Contiguous USA Albers. I assume this is what folks would like range wide data sets projected to, correct? And what data uploaded to ScienceBase should be projected to?

What about State level data sets or other smaller areas? Should these be set to Albers as well or is it better to suggest using the appropriate Zone in UTM NAD 83? Avoid using custom state level projections?

Also, for map display of range wide data, Albers kicks things to the side. When producing maps would it be appropriate to orient the data to give a more level view of the range (Western US)? UTM Zone 12 orients things that look good visually. Should map orientation be left up to the individual Cartographer? Just recommend all maps be set to NAD 83 Albers? Or pick a specific projection to set the data frame to for map production?

I agree that there should be some language that addresses using the web Mercator projection for data intended to be used in web services. There should also be language recommending not using NAD 1927 and reprojecting any existing NAD27 data to NAD83. Any other recommendations to do or not to do?

Let me know what you guys think,  
Jim

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On Tue, May 20, 2014 at 9:05 AM, Juliusson, Lara <[lara\\_juliusson@fws.gov](mailto:lara_juliusson@fws.gov)> wrote:

It sounds like we are all in agreement regarding stating a general preferred/recommended projection of Albers NAD 83. I would tend to say no to the central meridian, unless we say something like, "Albers NAD 83, Contiguous USA with a central meridian of -96.0, and first and second standard parallels of 29.5 and 45.5" so

as to avoid ambivalence. Jim, would you mind writing up a straw man for this section in the document? I've put in a stub.

[https://docs.google.com/a/doi.gov/document/d/1gYrZ1Gv\\_rnxAkPj6na5CC0mDv6wm0diV45iU0Pp0t4o/edit?usp=sharing](https://docs.google.com/a/doi.gov/document/d/1gYrZ1Gv_rnxAkPj6na5CC0mDv6wm0diV45iU0Pp0t4o/edit?usp=sharing)

Oh, Matt and Sean, did you have an opinion on Pat's thoughts regarding using Web Mercator? I'm thinking we aren't going to be creating web services for any of these data (received models and inputs) at this point, so my thought is we just wait on that, but it is a good question.

Lara

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On Mon, May 19, 2014 at 10:31 AM, Heller, Matthew <[matthew\\_heller@fws.gov](mailto:matthew_heller@fws.gov)> wrote:  
Regarding Pat's questions,

I like the idea of stating "preference" or "recommendation". North American Albers NAD83 as a general recommendation sounds good to me. Should we go as far as a central meridian suggestion (e.g. 105 deg. W) or is that overkill? I agree NAD27 is something to discourage, it can be handled in ArcGIS but can trip a lot of users up. The last NAD 27 data I came across was Little's data (<http://esp.cr.usgs.gov/data/little/>) ([http://esp.cr.usgs.gov/data/little/vegmaps\\_met.shtml](http://esp.cr.usgs.gov/data/little/vegmaps_met.shtml)) when checking into big sagebrush range. Hopefully NAD 27 is only isolated to some old base layer data. I'm guessing finer scale datasets, from data providers, may originally be in UTM NAD83 and broader scale datasets will be Albers NAD83.

I think it would be good to add in Pat's web service delivery sentence.

M.

On Wed, May 14, 2014 at 9:59 AM, Lineback, Pat <[pat\\_lineback@fws.gov](mailto:pat_lineback@fws.gov)> wrote:

It seems reasonable to state a "preference" or "recommendation", but perhaps not hold people to it because there might be some uncertainty on some of the outputs being produced? So Albers NAD83 could be strawman?? NAD 27 is something to discourage as I'm guessing there might be transformation issues between datums inside of ArcGIS? Probably, not significant, but wondering why someone would use an older datum?

If uploading to science base, to optimize for any web services delivery (REST, WMS), the best is web mercator auxiliary sphere. Should we address that?

On Wed, May 14, 2014 at 6:48 AM, Lindstrom, James <[james\\_lindstrom@fws.gov](mailto:james_lindstrom@fws.gov)> wrote:

A question for the group, and follow up to some of yesterdays discussion. Are there any suggested projections for range wide mapping work for Greater Sage-Grouse? I've done work using NAD 1983 Albers and I've received some data set to NAD 1927 Albers. Are there preferences? Other projections better suited for this type of mapping/analysis work?

Thanks,  
Jim

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